

AMENDMENTS TO THE CLAIMS:

This listing of claims will replace all prior versions, and listings of claims in the application:

LISTING OF CLAIMS:

1. (currently amended) Frying hob arrangement comprising:

a planar heating means (4,5) including a ferromagnetic material and constituting a frying surface,

said arrangement ~~comprises at least two~~ comprising first and second magnetic field generators (1,2),

each magnetic field generator having two free ends (6),
the first and second generators together having four poles, wherein,

said heating means is arranged in or close to a plane defined by said free ends,

said magnetic field generators are controlled by a control means such that they are adapted to generate alternating magnetic fields in said planar heating means,

~~wherein~~ the magnetic fields are converted into heat in said heating means, and

~~characterized in that~~ said magnetic fields being such that the magnetic field through one of said free ends has an opposed direction as compared to the magnetic fields through the other free ends by a coil of one leg of the first magnetic field generator being fed by a reversed polarity as compared to feeding

of the other three coils of the magnetic module, and during each half period three poles have a magnetic field directed in the same direction and the fourth pole having an opposite directed magnetic field and during each next half period the direction of all poles is reversed.

2. (original) Hob arrangement according to claim 1, characterized in that said two magnetic field generators constitute a magnetic module.

3. (original) Hob arrangement according to claim 2, characterized in that said magnetic field generator comprises a magnetic core having said two free ends and is provided with one or many magnetic coils to which magnetic field generating energy is applied.

4. (original) Hob arrangement according to claim 3, characterized in that said magnetic core is U-shaped and has two legs and a joining part, wherein one magnetic coil is arranged on each of the legs.

5. (original) Device according to claim 3, characterized in that said magnetic core is divided in two separate rod-shaped legs, wherein at least one magnetic coil is arranged on each of the legs.

6. (previously presented) Hob arrangement according to claim 4, characterized in that the legs for all magnetic field generators in the magnetic module are parallel.

7. (cancelled).

8. (previously presented) Hob arrangement according to claim 4, characterized in that said applied magnetic field generating energy is an alternating electrical power having a predetermined frequency, wherein the electrical power is applied with a reversed polarity to two of the magnetic coils compared to the electrical power applied to the other two coils of the module.

9. (currently amended) Hob arrangement according to claim ~~[[7]]~~ 8, characterized in that said predetermined frequency is in the range of 50-60 Hz.

10. (original) Hob arrangement according to claim 2, characterized in that the arrangement comprises $3 \times N$ modules, where $N = 1, 2, 3$ or 4 .

11. (original) Hob arrangement according to claim 2, characterized in that the arrangement comprises 1-1000 magnetic modules.

12. (original) Hob arrangement according to claim 1, characterized in that said arrangement comprises at least one temperature sensor arranged close to said plane, wherein said sensor generates temperature signals that are applied to said control means and used to control the heating of the device.

13. (original) Hob arrangement according to claim 1, characterized in that said heating means comprises two planar sheets, a lower sheet facing the free ends of the magnetic field generators and an upper sheet on the opposite side.

14. (original) Hob arrangement according to claim 13, characterized in that said lower sheet is a 2 mm sheet of aluminium and the upper sheet is a 4 mm sheet of iron.

15. (currently amended) Hob arrangement according to claim 13, characterized in that said two sheets are floating with respect to each other so that ~~, i.e.~~ they are not fastened or fixed ~~(fixed)~~ to each other.

16. (original) Hob arrangement according to claim 13, characterized in that said upper sheet is made of a ferromagnetic material and the lower sheet is made from a paramagnetic material.

17. (previously presented) Hob arrangement according to claim 5, characterized in that the legs for all magnetic field generators in the magnetic module are parallel.

18. (previously presented) Hob arrangement according to claim 5, characterized in that said applied magnetic field generating energy is an alternating electrical power having a predetermined frequency, wherein the electrical power is applied with a reversed polarity to one of the magnetic coils compared to the electrical power applied to the other three coils of the module.

19. (previously presented) Hob arrangement according to claim 5, characterized in that said applied magnetic field generating energy is an alternating electrical power having a predetermined frequency, wherein the electrical power is applied with a reversed polarity to two of the magnetic coils compared to the electrical power applied to the other two coils of the module.

20. (cancelled).

21. (new) Frying hob arrangement comprising:

a planar heating element comprising a ferromagnetic material constituting a frying surface;

a magnetic module with first and second magnetic field generators,

each magnetic field generator having two free ends defining a plane proximate the planar heating element,

the magnetic module having four coils and four poles,

a control element connected to the magnetic field generators to control generation of alternating magnetic fields within said planar heating element so that the magnetic fields are converted into heat in the planar heating element; and

an alternating current power source with a first current connection (F1) and a second current connection (F2),

the first current connection (F1) connected to a first free end (f1) of the four coils and the second current connection (F2) connected to a second free end (f2) of the four coils with a coil of one leg of the first magnetic field generator fed by a reversed polarity as compared to feeding the other three coils and, with each half period, three poles have a magnetic field directed in the same first direction and the fourth pole has a magnetic field directed in an opposite second direction, during each next half period the direction of all poles is reversed.

22. (new) Frying hob arrangement comprising:

a planar heating element comprising a ferromagnetic material constituting a frying surface;

a magnetic module with first and second magnetic field generators,

each magnetic field generator having two free ends defining a plane proximate the planar heating element,

the magnetic module having four coils and four poles;
and

an alternating current power source with i) a first current connection (F1) connected to a first free end (f1) of the four coils and ii) a second current connection (F2) connected to a second free end (f2) of the four coils, the four coils arranged such that a first coil is fed by a reversed polarity as compared to feeding the other three coils so that with each half period, the three poles of the other three coils have a magnetic field directed in the same first direction and the pole of the first coil has a magnetic field directed in an opposite second direction.